

# Stealth Acoustics

Full-Range, Whole-House Audio Solutions

## MODEL 255R

250 watt Monaural Amplifier with Low Pass Filter



## User Manual

### User Reference:

---

Dealer Name

---

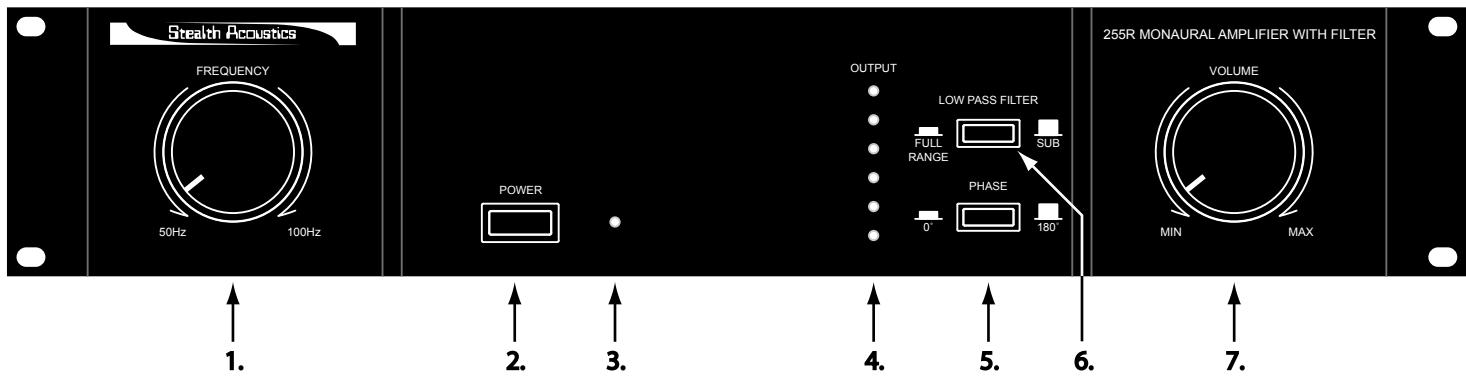
Date Installed

---

Serial Number

# Stealth Acoustics

A Division of Dimensional Communications, Inc. | 1220 Anderson Road | Mount Vernon, WA 98274  
www.StealthAcoustics.com | Toll Free: 888.865.6800 | Fax: 360.424.8872

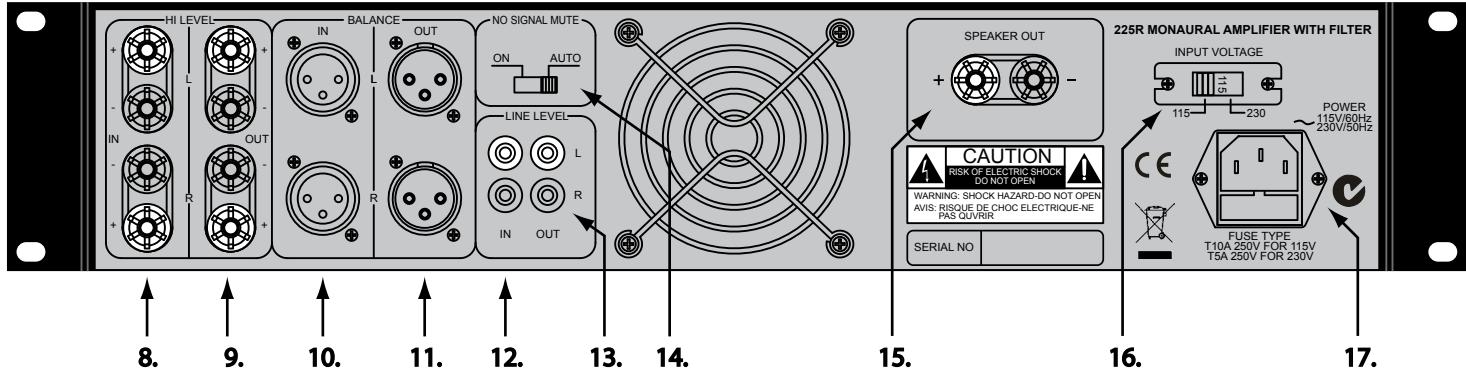


## FRONT PANEL

1. **CROSSOVER FREQUENCY CONTROL** – The crossover frequency is variable from (far left) 50 Hz to 100 Hz (far right).
2. **POWER** – Push on, push off
3. **WORKING STATUS LED** – When the power is on, the LED lights red. When power is first turned on the amplifier enters a self-check mode followed by a standby mode. When audio signal is detected the amplifier automatically turns on and the LED turns blue. When amplifier the is in the protection mode the LED will show red.
4. **OUTPUT SIGNAL LEVEL LED'S** - As output increases the LED's will light from the bottom up. Top LED indicates clipping.
5. **PHASE CONTROL** – Push on, push off. Will reverse phase of output 180 degrees.
6. **LOW PASS FILTER** – The in position will turn off the low pass filter allowing the amplifier to run full bandwidth.
7. **VOLUME CONTROL** – Clockwise increase, counter clockwise decrease.

### Some words of caution:

- Do not attempt to service this product yourself, as opening or removing the cover may expose you to dangerous voltage or other hazards.
- Do not block intake (bottom front) or exhaust (rear) vents.
- Do not cycle power switch on front panel on and off quickly and repeatedly. Allow 5 seconds for amplifier to complete it's startup routine.



## REAR PANEL

8. **HIGH LEVEL INPUT** – Speaker level inputs are provided to allow interface with sources that do not provide a line level subwoofer output.
9. **HIGH LEVEL OUTPUT** - Speaker level pass-through outputs connect directly to speakers.
10. **BALANCED LINE INPUT** – Connect to balance line signal source. (Pin 1 GND, Pin 2 +, Pin 3 -)
11. **BALANCED LINE OUTPUT** - Convenience output for connection to other balance line equipment.
12. **LINE LEVEL INPUT** - Connect to line level output (RCA connector) of receiver or pre-amplifier.
13. **LINE LEVEL OUTPUT** – Convenience output for connection to other line level equipment.
14. **NO SIGNAL MUTE SWITCH** – This is a 2 position slide switch. In the far left (ON) position, the amplifier is in a powered up mode. The power LED on the front panel will glow blue. In the right (AUTO) position, the amplifier will monitor signal input and power up automatically when signal is received. The LED on the front will glow red until it senses an audio signal, then blue when it is activated. In this mode the amplifier will power down automatically after 10 to 20 minutes with no audio activity.
15. **AMPLIFIER OUTPUT** - Binding posts provide output to subwoofer(s). (Minimum 4 ohm load.)
16. **INPUT VOLTAGE SWITCH** - Select between 115 volts AC /60Hz (USA) and 230 volts AC/50Hz (European).
17. **POWER SOCKET** – AC Power cord plugs into this socket. Appropriate IEC power cord is provided.

## **Functions and Features:**

- Rack Mountable - Requires (2) Spaces (3.5")
- Variable Low Pass Filter
- Auto On/Standby Function
- High Level Inputs and Outputs
- Line Level inputs and Outputs
- Balanced Line Inputs and Outputs
- DC Protected Fixed High Pass Filter
- Standby LED (Red), Blue When Active
- Output Monitor LEDs
- 115 VAC and 230 VAC Input Voltages
- Fan Cooled - 8 Speed Stages
- Phase Switch

## **Specifications:**

- Mono Output Power:  
250 watts at 8 ohms<0.05 THD  
350 watts at 4 ohms<0.05 THD
- THD <0.05 @ 1 watt 4 ohms/100Hz
- S/N 86db Below Rated Output
- Crossover Section:  
High Pass Filter: 18 Hz/30db/octave (fixed)  
Low Pass Filter: 50 Hz to 100 Hz/ 41db/octave (variable)
- Current Draw: 6.2Amps @ 350W/4ohms/115VAC/60Hz
- Dimensions: 19" wide, 3.5" High, 13-3/5" deep
- Shipping Weight: 30 lbs./14 kg.

## **TIPS**

### **SPEAKER CONNECTION:**

To use the binding-post speaker terminals with bare wire, unscrew the collar until the hole through the center post is visible under the collar. Insert the bare end of the wire through the hole in the post, then screw the collar back down until the connection is tight. The holes in the center of the collars are intended for banana-type connectors.

### **SPEAKER LEVEL CONNECTION:**

Use this installation method where the receiver/processor does not have a subwoofer output or a volume controlled preamp line-level output. Connect your receiver or amplifier's front left and right speaker terminals to the left and right terminals on the 255R that are marked "High Level In" (see item 8 Rear Panel Detail). Connect the left and right terminals on the 255R that are marked "High Level Out" (item 9) to the corresponding terminals on the back of your front left and right speakers. This method will also work for whole house audio distribution systems since most multi-channel whole house audio amplifiers do not have a line level subwoofer output. If the amp speaker level input is after a speaker volume control, the 255R volume will track with the volume control.

### **LINE LEVEL CONNECTION:**

Use this method where the receiver /processor is equipped with a subwoofer output or a volume-controlled preamp line level output. Use RCA-type patch cords to connect the line-level inputs on the 255R (see item 12 Rear Panel Detail). If your receiver or amplifier only has one subwoofer output jack, then you may connect the subwoofer output on your receiver/preamplifier to either the left or right line-level input on the 255R. It makes no difference which jack you choose.

### **BALANCED LINE CONNECTION:**

This method is used when the 255R is placed between a preamplifier and power amplifier that connect with 3-pin XLR type connectors.

### **PHASE CONTROL:**

The Phase Control determines whether the subwoofer's piston-like action moves in and out in phase with the main speakers or opposite the main speakers. There is no correct or incorrect setting. Proper phase adjustment depends on several variables such as subwoofer placement and listener position. Adjust the phase switch to maximize bass output at the listening position.

Remember, every system, room and listener is different. There are no right or wrong settings; this switch offers the added flexibility to adjust your subwoofer for optimum performance for your specific listening conditions. If at some time in the future you happen to rearrange your listening room, you should experiment with the phase switch in both positions, and leave it in the position that maximizes bass performance.

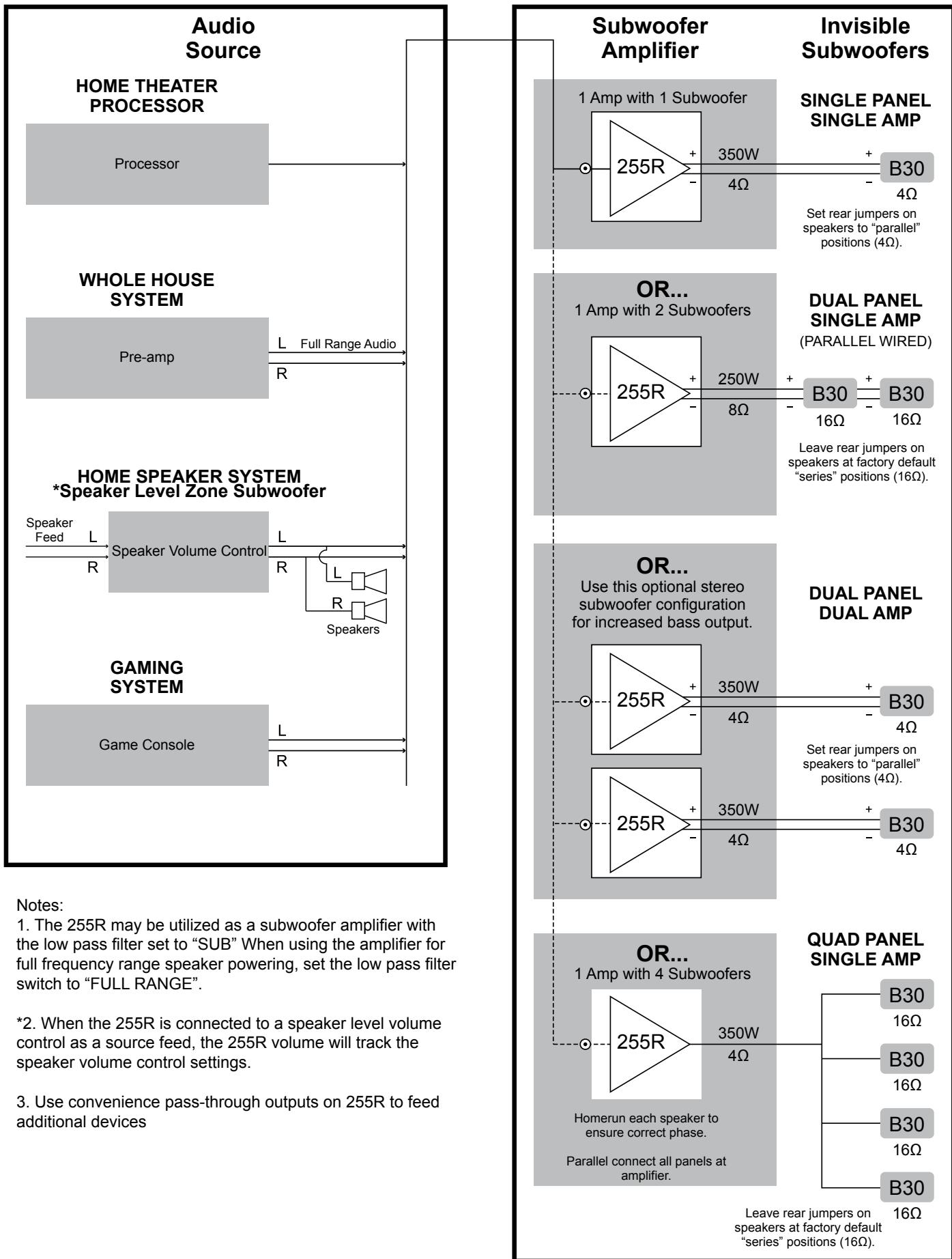
### **CROSSOVER ADJUSTMENTS:**

The Crossover Frequency Control determines the highest frequency at which the subwoofer reproduces sounds. If your main speakers can comfortably reproduce some low-frequency sounds, set this control to lower frequency setting, between 50Hz – 80Hz. This will concentrate the subwoofer's efforts on the ultra deep bass sounds required by today's films and music. If you are using smaller bookshelf speakers that do not extend to the lower bass frequencies, set the low-pass crossover control to a higher setting, between 80Hz – 100Hz.

### **LEVEL CONTROL:**

The Volume Control will adjust the level of the subwoofer relative to the rest of the system. Proper level adjustment depends on several variables such as room size, subwoofer placement, type of main speaker and listener position. Adjust the subwoofer level so that the volume of the bass information is pleasing to you. The amplifier will track input level changes and adjust volume relative to input source level changes. Front panel level control determines the maximum level of output.

# MODEL 255R SUBWOOFER AMPLIFIER – CONNECTION EXAMPLES



## Notes:

1. The 255R may be utilized as a subwoofer amplifier with the low pass filter set to "SUB". When using the amplifier for full frequency range speaker powering, set the low pass filter switch to "FULL RANGE".
- \*2. When the 255R is connected to a speaker level volume control as a source feed, the 255R volume will track the speaker volume control settings.
3. Use convenience pass-through outputs on 255R to feed additional devices